$$\begin{cases} 8 \\ f(z) = \frac{1}{1-z} \text{ or } |A| \\ Z_0 = \frac{1-1}{1+z} \text{ or } |A| \\ Z_0 = \frac{1-1}{1+z} (1-z) = \frac{1-12-1}{2} = -1 \end{cases}$$

$$\begin{cases} f(z_0) = \frac{1+(-z_0)}{1+z} \text{ or } |A| = \frac{1-z_0}{2} = -1 \end{cases}$$

$$f(z_0) = \underbrace{\frac{1+(-i)}{1-(-i)}}_{1-(-i)} = \underbrace{\frac{1-i}{1+i}}_{1+i} = \underbrace{\frac{1-i(1-i)}{1+i(1-i)}}_{1-i-1} = \underbrace{\frac{1-i(1-i)}{1+i(1-i)}}_{2} = \underbrace{\frac{1-i(1-i)}{1+i(1-i)}$$

$$f(z_0) = \frac{1 - (z_0)}{1 + (z_0)} = \frac{1 - (z_0)}{2} = (-1)$$